Amendments to the Claims

This listing of the claims will replace all prior versions and listings of claims in the application.

Listing of the Claims

CLAIM 1 (previously presented) A modular tire assembly, comprising:

a tire casing having a replaceable tire tread, a first side wall and a second side wall, said replaceable tire tread captured by said first side wall and said second side wall, said tire casing defining a tire interior area;

an inflatable member having a plurality of inflatable inner tube segments disposed within said tire interior area, each inner tube segment inflated and deflated independent from all other said inner tube segments, each inner tube segment having an inner wall coated with a sealant;

a pair of split rims, each of said pair of split rims having a hub member inserted within an central opening defined by said first side wall, said second side wall and said inflatable member; and

means for connecting said pair of split rims to each other.

CLAIM 2 (previously presented) The modular tire assembly of claim 1 wherein said means for connecting said pair of split rims comprises:

a plurality of rim-mounted studs and associated nuts connecting the hub members together such that an outer flange portion of a first of said pair of split rims abuts an outer surface portion of said first side wall adjacent the central opening and an outer flange portion of a second of said pair of split rims abuts and outer surface portion of said second side wall adjacent the central opening.

CLAIM 3 (previously presented) The modular tire assembly of claim 16 wherein each of said plurality of internal inflatable air cells for each inner tube segments having its own air inflation mechanism to produce a plurality of independent air inflation mechanisms for each inner tube segments, wherein the independent air inflation mechanisms are brought together at one end to form an air filler valve stem having a plurality of independent air travel chambers; wherein each of said air travel chambers is in communication with a particular inflatable air cell for a particular inner tube segment.

CLAIM 4 (previously presented) A modular tire, comprising:

a tire casing having a replaceable tire tread, a first side wall and a second side wall;

means for attaching and detaching said replaceable tire tread to said first side wall and said second side wall to define a tire interior area; and

at least one inflatable inner tube segment disposed within said tire interior area, said at least one inflatable inner tube segment having a plurality of internal inflatable air cells, each of said internal inflatable air cells being separate and independent of all other internal air cells.

CLAIM 5 (previously presented) The modular tire of claim 4 wherein said means for attaching and detaching comprises:

a first hole pattern disposed along a circumference of said first side wall;

a second hole pattern disposed along a circumference of said second side wall;

a third hole pattern disposed along a first side of said replaceable tire tread for alignment with said first hole pattern;

a fourth hole pattern disposed along a second side of said replaceable tire tread for alignment with said second hole pattern; and

a plurality of bolts and captive nuts;

wherein once the hole patterns are properly aligned each one of said plurality of bolts is inserted through a corresponding hole in said first hole pattern, said second hole pattern, said third hole pattern and said fourth hole pattern and once properly inserted said associated captive nut is securely disposed on the inserted end of said bolt.

CLAIM 6 (original) The modular tire of claim 5, wherein the number of plurality of bolts and captive nuts provided corresponds to the number of hole patterns of either said first hole pattern, said second hole pattern, said third hole pattern or said fourth hole pattern.

CLAIM 7 (previously presented) The modular tire of claim 4 wherein a plurality of inflatable inner tube segments are disposed within said tire interior area with each inner tube segment provided with a plurality of internal inflatable air cells, each of said internal inflatable air cells within each tube segment are separate and independent from all other internal inflatable air cells within each tube segment.

CLAIM 8 (previously presented) A modular tire assembly, comprising:

a tire casing having a first side wall having a first hole pattern disposed along its outer circumference, a second side wall having a second hole pattern disposed along its outer circumference and a replaceable tire tread, said replaceable tire tread including a third hole pattern disposed along a first side for alignment with said first hole pattern and a fourth hole pattern disposed along a second side for alignment with said second hole pattern;

means for attaching and detaching said replaceable tire tread to said first side wall and said second side wall to define a tire interior area;

an inflatable member having a plurality of independent inflatable inner tube segments disposed within said tire interior area, each of said plurality of independent inflatable inner tube segments having a plurality of internal inflatable air cells; wherein each of said plurality of internal inflatable air cells disposed within each inner tube segment being separate and independent from all other internal inflatable air cells of each inner tube segment;

a pair of split rims, each of said pair of split rims having a hub member inserted within an central opening defined by said first side wall, said second side wall and said inflatable member; and

means for connecting said pair of split rims to each other.

CLAIM 9 (previously presented) The modular tire assembly of claim 8 wherein said means for attaching comprises a plurality of bolts and captive nuts; wherein once the hole patterns are properly aligned each one of said plurality of bolts is inserted through a corresponding hole in said first hole pattern, said second hole pattern, said third hole pattern and said fourth hole pattern and once properly inserted said associated captive nut is securely disposed on the inserted end of said bolt.

Claim 10 (previously presented) The modular tire assembly of claim 9, wherein the number of plurality of bolts and captive nuts provided corresponds to the number of hole patterns of either said first hole pattern, said second hole pattern, said third hole pattern or said fourth hole pattern.

CLAIM 11 (previously presented) The modular tire assembly of claim 2 wherein each of said plurality of inflatable inner tube segments having an air filler valve stem and at least one of said

pair of split rims having a plurality of slots; wherein when said first split rim and said second split rim are connected together each air filler valve stem protrudes through one of said plurality of slots.

CLAIM 12 (previously presented) The modular tire assembly of claim 1 wherein said tire casing having a first plurality of grooves around it circumference and said replaceable tread having a second plurality of grooves which mate with said first plurality of grooves to prevent said replaceable from slipping during operation of a vehicle associated with said modular tire assembly.

CLAIM 13 (previously presented) The modular tire of claim 4 wherein each of said plurality of internal inflatable air cells for each inner tube segments having its own air inflation mechanism to produce a plurality of independent air inflation mechanisms for each inner tube segments, wherein the independent air inflation mechanisms are brought together at one end to form an air filler valve stem having a plurality of independent air travel chambers; wherein each of said air travel chambers is in communication with a particular inflatable air cell for a particular inner tube segment.

CLAIM 14 (previously presented) The modular tire assembly of claim 8 wherein each of said plurality of internal inflatable air cells for each inner tube segments having its own air inflation mechanism to produce a plurality of independent air inflation mechanisms for each inner tube segments, wherein the independent air inflation mechanisms are brought together at one end to form an air filler valve stem having a plurality of independent air travel chambers; wherein each of said air travel chambers is in communication with a particular inflatable air cell for a particular inner tube segment.

CLAIM 15 (previously presented) The modular tire assembly of claim 8 wherein each of said plurality of inflatable inner tube segments having an air filler valve stem and at least one of said pair of split rims having a plurality of slots; wherein when said first split rim and said second split rim are connected together each air filler valve stem protrudes through one of said plurality of slots.

CLAIM 16 (previously presented) The modular tire assembly of claim 1 wherein each inner tube segment having a plurality of internal inflatable air cells; wherein each of said plurality of internal inflatable air cells disposed within each inner tube segment being separate and independent from all other internal inflatable air cells of each inner tube segment; wherein each of said plurality of internal inflatable air cells having inner walls which are coated with a sealant.

CLAIM 17 (previously presented) The modular tire of claim 7 wherein each of said plurality of internal inflatable air cells within each of said plurality of inner tube segments are independently inflatable and deflatable from all other internal inflatable air cells.

CLAIM 18 (previously presented) The modular tire of claim 17 wherein each of said plurality of internal inflatable air cells having inner walls which are coated with a sealant.

CLAIM 19 (previously presented) The modular tire assembly of claim 8 wherein each of said plurality of internal inflatable air cells having inner walls which are coated with a sealant.

CLAIM 20 (currently amended) A modular tire comprising:

a spring or spring-like support system having an integrated wheel hub mechanism for mounting the support system to a vehicle, said support system having a plurality of spring or spring-like

members, each of said plurality of spring or spring-like members having an interior area;

a plurality of inflatable inner tube segments, each of said plurality of inflatable inner tube segments associated with a corresponding one of said plurality of spring or spring-like members and disposed within the interior area of the corresponding one of said plurality of spring or spring-like members, each inner tube segment inflated and deflated independent from all other said inner tube segments;

a casing having a replaceable tire tread, said casing defining an interior area for disposed of said spring or spring-like support system when said casing is installed over said spring or spring-like support system.